BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images, please do not report the images to the Image Problem Mailbox.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,580	04/13/2001	Albert Hasper	NEDER24.001A	2074

20995 7590 11/27/2002

KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER	
FOX, CHARLES A	

ART UNIT	PAPER NUMBER
3652	

DATE MAILED: 11/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/807,580	HASPER ET AL.
	Examiner	Art Unit
	Charles A. Fox	3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 8-15 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 8-15 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 27 August 2002 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 8,9,13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muka in view of Hasebe et al. In regards to claim 8 Muka US 6,079,927 teaches a device for storing wafers in cassettes comprising:

a housing;

a wafer handling device (230) arranged in a chamber (262) configured to be sealed in respect to said housing;

a part (172,174) for receiving at least 2 closable cassettes arranged in the housing and separated from said chamber by a partition, said part (172,174) configured to position a cassette against a closable opening, wherein said cassette and said closable opening are opened so that said wafer handling device can remove or place wafer from and to said cassettes;

a store (110) for closable cassettes arranged within the housing;

a handling device (190) for closable cassettes arranged in the housing, wherein the store and the device for handling (190) closable cassettes and the part

(172,174) for receiving cassettes are separate, and the wafer handling device is adapted to transfer wafers from a first cassette to a second cassette.

Muka does not teach the device as moving the wafers directly from one cassette to another.

Hasebe et al. US 5,826,129 teaches a device (110) for moving wafers (w) from a one of a plurality of cassettes (CR) to other location including a second cassette if desired. See column 7 lines 21-26. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Muka with the direct transfer abilities taught by Hasebe et al. in order to allow the wafers to be transferred to any one of a number of locations as required by the operator of the system to process a set of wafers.

In regards to claim 9 Muka further teaches that the device is configured to sort wafers stored in front opened unified pods (FOUPs).

In regards to claims 13 and 15 Muka discloses a method of assembling a batch of wafers in a cassette comprising the steps of:

placing at least a first and second closed cassette in a store;

employing a cassette handling device to select and move a first cassette from the store to a sorting operation, wherein the first cassette is opened and placed in active connection with a wafer handling device in a chamber;

employing a cassette handling device to select and move a second cassette from the store to a sorting operation, wherein the second cassette is opened and placed in active connection with a wafer handling device in a chamber;

employing a wafer handling device to sort wafers by transferring the wafers between the first and second cassettes, wherein the chamber is sealed.

Muka does not teach the device as moving the wafers directly from one cassette to another.

Hasebe et al. US 5,826,129 teaches a method of moving wafers from a one of a plurality of cassettes to another location including a second cassette if desired. See column 7 lines 21-26. It would have been obvious to one of ordinary skill in the art, at the time of invention to modify the methods as taught by Muka with the transfer methods as taught by Hasebe et al. in order to allow the wafers to be transferred to any one of a number of locations as required by the operator of the system to process a set of wafers.

Claims 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muka in view of Hasebe et al. as applied to claims 8 and 13 above, and further in view of Cheng. In regards to claim 10 Muka as modified by Hasebe et al. teach the limitations of claim 8 as above, they do not teach testing the wafers. Cheng (US 6,164,894) teaches a wafer handler (14) that is functionally connected with a wafer measuring station (85). It would have been obvious to one of ordinary skill in the art, at the time of invention to add a measuring station as taught by Cheng to the apparatus taught by Muka as modified by Hasebe et al. in order to test the wafers automatically after processing, therein making the process faster and more precise.

In regards to claim 14 Muka as modified by Hasebe et al. teach the limitations of claim 13 as above, they do not teach the step of testing the wafers. Cheng teaches a

method of wafer handling whereby a wafer is tested at a wafer measuring station. It would have been obvious to one of ordinary skill in the art, at the time of invention to add the measuring step taught by Cheng to the methods taught by Muka as modified by Hasebe et al. in order to test the wafers automatically after processing, therein making the process faster and more precise.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muka in view of Hasebe et al. as applied to claim 8 above, and further in view of Rush et al. Muka in view of Hasebe et al. teach the limitations of claim 8 as above they do not teach the use of a turntable. Rush et al. teach a wafer transfer machine that makes use of a turntable (12) to hold wafer carriers (24). It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the receiving stations taught by Muka in view of Hasebe et al. as a turntable as taught by Rush et al. in order to allow a second cassette to be placed on the turntable while a first cassette is in communication with the wafer handler, therein allowing the cassettes to be interchanged rapidly decreasing the wait time of the processing unit.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muka in view of Hasebe et al. as applied to claim 8 above, and further in view of Garric et al. Muka in view of Hasebe et al. teach the limitations of claim 8 as above, they do not teach the store as being a rotatable magazine. Garric teaches a store (300) for wafer cassettes (100) that is a rotatable magazine. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the store taught by Muka in

view of Hasebe et al. as a rotatable store as taught by Garric et al. as the rotatable magazine is considered to be a conventional means of storing wafer cassettes.

Response to Amendment

The amendments to the claims set forth in paper number 15, and the formal drawings presented in paper number 13 have been entered into the record.

Response to Arguments

Applicant's arguments with respect to claims 8,13 and 15 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 703-605-4294. The examiner can normally be reached between 7:00-5:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached at 703-308-3248. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

EILEEN D. LILLIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

CAF
November 18, 2002